

### **REMARKS**

Applicants acknowledge receipt of an Office Action dated May 15, 2007. In this response, Applicants have amended claim 1. Support for this amendment can be found in the application as originally filed, for example in original claim 11 and ¶[0026]. Additionally, Applicants have amended claims 2-10 to correct informalities in the claims. Claims 1-10 are pending in the application.

Claims 11-14 have been withdrawn from consideration as being drawn to non-elected subject matter despite Applicants' traversal. Applicants expressly reserve the right to pursue the non-elected subject matter in one or more continuing, divisional, or reissue applications.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

#### **Information Disclosure Statement**

On page 4 of the Office Action, the PTO has indicated that it has not considered the references crossed off the form SB/08 which was submitted with an information disclosure statement dated February 23, 2005. With this response, Applicants are submitting copies of the references crossed off the SB/08 along with a clean copy of the form SB/08 for the PTO to initial, sign, and date and return to Applicants with its next communication.

#### **Rejection Under 35 U.S.C. § 103**

In the Office Action, the PTO has set forth a number of rejections under 35 U.S.C. § 103 which Applicants summarize below for reference:

- On page 5 of the Office Action, the PTO has rejected claims 1, 5, 8, and 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP 2000-271200 to Takeda (hereafter "Takeda") in view of U.S. Patent 5,304,358 to Hoyt (hereafter "Hoyt").
- On page 6 of the Office Action, the PTO has rejected claim 2 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of U.S. Patent 5,460,787 to Colon (hereafter "Colon").

- On page 7 of the Office Action, the PTO has rejected claims 3 and 6 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of WO 2001/78794 to Shah (hereafter “Shah”).
- On page 9 of the Office Action, the PTO has rejected claim 4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of U.S. Patent 3,567,118 to Shepherd (hereafter “Shepherd”).
- On page 10 of the Office Action, the PTO has rejected claims 5 and 8 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of U.S. Patent Application Publication 2003/0024997 to Welch (hereafter “Welch”).
- On page 12 of the Office Action, the PTO has rejected claim 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of U.S. Patent 6,511,548 to Oreck (hereafter “Oreck”) or U.S. Patent 5,424,049 to Giolitti (hereafter “Giolitti”).

Applicants traverse these rejections for the reasons set forth below.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants’ disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Here, Takeda and Hoyt, whether taken individually or in combination, fail to teach or suggest use of “volatile active agents ... dispersed in a matrix of a crosslinked polymer” that form “a spongelike composition” which is “incorporated between two parallel boards open on all sides above the surface of the malodorous materials or at the edge of the large-scale plant” over which “a stream of air from natural wind flows between the parallel boards and over the spongelike composition and releases the volatile active agents” as recited in independent claim 1.

Takeda discloses an adsorption and oxidation material for deodorization which is dried and formed into a disc and made by stirring a mixture of activated carbon, zeolite and titanium oxide, water, an additive solution ("emulsion X-6431-3" which is not further specified) and a porous synthetic resin ("urethane foam"), thereby replacing the air in the pores of the foam by the solution. Takeda, Abstract; pg. 3, last two lines of English translation. Several discs 4' are introduced into a body 3, to which an air supply pipe and an exhaust pipe 2 are attached, and which also contains a ultraviolet ray lamp or an ozone lamp 5. Takeda, claims 2 and 5. The activated carbon is responsible for adsorption of the malodorous substances and the ultraviolet ray or ozone lamp is responsible for oxidation of the malodorous substances. This differs from the presently claimed invention which requires volatile active agents that react with or mask malodorous substances, not that adsorb them. Furthermore, the presently claimed invention utilizes "air from natural wind flows" to release the volatile active agent, not air forced through pipes into a closed body containing adsorbing agents.

Hoyt fails to resolve the deficiencies of Takeda. Hoyt discloses an air freshener device consisting of a fragrance-carrying medium such as a paper blotter attached between a pair of snap-lock members. Col. 1, lns. 54-61. Peripheral vents allow the fragrance to be discharged exteriorly of the device. Col. 1, lns. 61-64. Each of the individual layers comprising the unitary structure disclosed in Hoyt result in a rigid and reinforced device when the components are laminated or joined together. Col. 2, lns. 4-8. The cavity containing the scented carrier is completely enclosed except for vent passageways. Col. 3, lns. 16-21, 29-34; Col. 4, lns. 55-58; Figs. 1, 9. This differs from the presently claimed invention which requires that the area between the parallel boards be open on all sides. The fragrance is contained in a series of thin, lightweight layers that trap the fragrance and have very little structural strength individually, such as blotter paper, but when assembled have a far greater strength and rigidity than the sum of the individual layers. Col. 5, lns. 10-24.

Furthermore, the process disclosed in Hoyt is a static process. The fragrance from the carrier medium is permitted to discharge exteriorly of the device and the vents permit the fragrance to escape from the blotter carrier. Col. 1, lns. 61-64; Col. 4, lns. 13-16. This differs from the dynamic process of the presently claimed invention which, from natural wind flows, drives away both the malodorous substances contained in the air and the released volatile

active agents which react with or mask the malodorous substances contained in the air. This differs from the presently claimed invention which requires that the active agents are dispersed in a matrix of crosslinked polymer containing hydrophilic groups. If the device disclosed in Hoyt were used in the present invention, i.e. if such cellulose paper would be placed between two parallel boards being open on all sides between which a stream of air from natural wind flows, the fragrances would be released very quickly and the activity of the deodorization device would be quickly terminated. This differs from the presently claimed invention, where the matrix of the crosslinked polymer of the presently claimed invention would release the active agents slowly.

On page 6 of the Office Action, the PTO states that it is allegedly “well known in the art at the time of the invention to position the impregnated carrier in between two parallel boards to allow air to flow between the two boards over the carrier.” However, this is not the case. The PTO cited to Hoyt as evidence of this proposition, however, as discussed above, Hoyt does not disclose positioning any type of impregnated carrier in between two parallel boards, but rather an impregnated carrier with the specific composition that is a series of thin, lightweight layers that trap the fragrance and have very little structural strength individually, but when assembled have a far greater strength and rigidity than the sum of the individual layers. Col. 5, lns. 10-24.

It was not well known in the art at the time of the invention to use a matrix of crosslinked polymer in between two boards as in the presently claimed invention. Neither Takeda nor Hoyt teach or suggest, a method of deodorizing large-scale plants by treating unpurified air with volatile active agents dispersed in a matrix of a crosslinked polymer to form a spongelike composition incorporated between two parallel boards open on all side, wherein the volatile active agents are released from the spongelike composition by air from natural wind flow.

For at least these reasons, Applicants submit that the outstanding rejection based upon the combination of Takeda and Hoyt is improper and ought to be withdrawn.

If an independent claim is nonobvious under § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicants submit that claims 2-10, each of which ultimately depend from independent claim 1, are also non-obvious at least by virtue of their dependency from claim 1.

On page 6 of the Office Action, the PTO has rejected claim 2 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takeda in view of Hoyt, and further in view of Colon. Claim 2 depends from independent claim 1 which is nonobvious under § 103 for the reasons cited above, therefore rendering claim 2 nonobvious as well. However, in an effort of completeness, Applicants address the disclosure of Colon. Colon discloses an apparatus utilizing a fragrance board of width from 1.5-2.5 inches. Col. 9, Ins. 10-15. However, Colon does not teach or suggest using a matrix of crosslinked polymer in between two boards as in the presently claimed invention. The boards of claim 2 comprise the spongelike composition which is a matrix of crosslinked polymer with volatile aromatic agents dispersed within the matrix. Takeda, Hoyt, and Colon, alone or in combination, fail to teach or suggest the presently claimed method of deodorizing large-scale plants.

On pages 7, 8, 9, 10, 11, 12, 13, and 14 of the Office Action, the PTO has suggested that different aspects of the dependent claims are allegedly “well known in the art at the time of the invention.”<sup>1</sup> However, for the reasons stated above, a method of deodorizing large-scale plants as presently claimed in independent claim 1, and therefore in dependent claims 2-10, was not well known in the art at the time of the invention for the reasons discussed above.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections under § 103.

### CONCLUSION

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

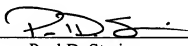
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<sup>1</sup> In the interest of creating a complete record, Applicants respectfully request that the PTO identify references to support its position with respect to those things it contends are “well known in the art” or withdrawn the corresponding rejection.s.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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